

Attorney Docket No: IL-11032
Fenwick Ref: 23540-1009
USSN: 10/630,607

AMENDMENTS TO THE CLAIMS

1-3. (CANCEL)

4. (Original): A method comprising:

(i) providing a sample;

(ii) forming a mixture by adding the sample to a solution containing at least one series of nucleotide sequences having a forward primer, a reverse primer and a hybridization probe selected from the group consisting of SEQ ID NOs:1, 2, 3; 5, 6, 7; 9, 10, 11; 13, 14, 15; 17, 18, 19; 21, 22, 23; under conditions suitable for isolating genomic DNA for amplification using PCR and under conditions suitable for hybridization with said at least one series of nucleotide sequences; and

(iii) subjecting the mixture to PCR.

5. (Original): The method of Claim 4 wherein said PCR comprises standard PCR.

6. (Original): The method of Claim 5, wherein said PCR comprises fluorogenic 5' nuclease PCR assay.

7. (Original): A method comprising:

(i) providing a sample;

(ii) forming a mixture by adding the sample to a solution containing at least one series of nucleotide sequences having a forward primer, a reverse primer and a hybridization probe selected from the group consisting of SEQ ID NOs:1, 2, 3; 5, 6, 7; 9, 10, 11; 13, 14, 15; 17, 18, 19; 21, 22, 23; under conditions suitable for isolating genomic DNA for amplification using PCR and under conditions suitable for hybridization with said at least one series of nucleotide sequences; and

(iii) detecting the presence of at least one Amplicon sequence by fluorogenic 5' nuclease PCR assay, wherein the presence of said one Amplicon sequence indicates the existence of Brucella in the sample.

8. (NEW) A composition comprising a first isolated polynucleotide and a second isolated polynucleotide, wherein the first isolated polynucleotide comprises SEQ ID NO:4 or a

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full-length complement thereof and the second polynucleotide comprises SEQ ID NO:8 or a full-length complement thereof.

9. (NEW) The composition of claim 8, comprising at least one further isolated polynucleotide comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOS: 12, 16, 20, and 24 or a full-length complement thereof.

10. (NEW) The composition of claim 9, comprising six isolated polynucleotides each comprising one of SEQ ID NOS: 4, 8, 12, 16, 20, and 24 or full-length complements thereof.

11. (NEW) A set of oligonucleotides comprising (a) a polynucleotide fragment of each of the isolated polynucleotides of the composition of claim 8, wherein said fragments are 12 to 50 nucleotides in length, or (b) full-length complements of (a).

12. (NEW) The set of oligonucleotides of claim 11, wherein said set consists of forward primers and reverse primers and hybridization probes.

13. (NEW) The set of oligonucleotides of claim 11, wherein each oligonucleotide comprises one of SEQ ID NOS: 1, 2, 3, 5, 6, and 7.

14. (NEW) A set of oligonucleotides comprising (a) a polynucleotide fragment of each of the isolated polynucleotides of the composition of claim 10, wherein said fragments are 12 to 50 nucleotides in length, or (b) full-length complements of (a).

15. (NEW) The set of oligonucleotides of claim 14, wherein each oligonucleotide comprises one of SEQ ID NOS: 1, 2, 3, 5, 6, 7, 9, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, and 23.

16. (NEW) The set of oligonucleotides of claim 11, wherein said fragments are 19 to 32 nucleotides in length.

17. (NEW) The set of oligonucleotides of claim 14, wherein said fragments are 19 to 32 nucleotides in length.